ENVIRONMENTAL TECHNICAL SERVICES
AN ENVIRONMENTAL CONSULTING FIRM

(800) 200-4ETS

2003 - 2004 ANNUAL REPORT DOCUMENTING THE IMPLEMENTATION OF THE OPERATIONS AND MAINTENANCE PLAN

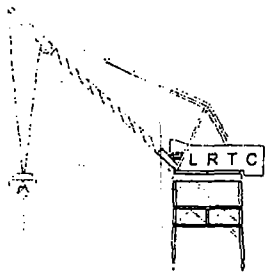
FORMER HECKATHORN NPL SITE

Located At The

LEVIN-RICHMOND TERMINAL CORPORATION
402 WRIGHT AVENUE
RICHMOND, CALIFORNIA

June 2004

1548 JACOB AVENUE • SAN JOSE, CA 95118 • (408) 267-6427 • FAX (408) 267-9729



Levin-Richmond Terminal Corporation

402 Wright Avenue, Richmond, California 94804
Tel. (510) 232-4422 / Fax. (510) 236-0129

July 6, 2005

Ms. Lynn Seur
EPA Project Manager, Superfund Program
US Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901

Re: Operations and Maintenance Plan for the former United Heckathorn Superfund Site Consent Decree, Levin Group

Dear Ms. Seur:

Please find enclosed documentation of the implementation of the Operations and Maintenance Plan (OMP) for the referenced site. The upland remedy implemented by Levin-Richmond Terminal Corporation and Levin Enterprises Inc. was approved by the U.S. Environmental Protection Agency on September 30, 1999. This current OMP Report is for the period ending June 2005.

Please contact me if you have any questions.

Regards,

Mike McCoy

cc: Gary Levin
Keith Howard

ENVIRONMENTAL TECHNICAL SERVICES

1548 Jacob Avenue, San Jose, CA 95118 Phone: (408) 267-6427 Fax: (408) 267-9729

2003 - 2004 ANNUAL REPORT
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402 WRIGHT AVENUE
RICHMOND, CALIFORNIA

Gary M. Levin
Levin Richmond Terminal

8/4/2004
Date

Helen Mawhinney
Environmental Technical Services

8/4/2004
Date

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APPENDICES

1.0 INTRODUCTION

This document is prepared for submittal to the United States Environmental Protection Agency (USEPA), Hazardous Waste Management Division. Levin-Richmond Terminal Corporation (LRTC), in compliance with the State of California General Storm Water Permit for Discharges of Storm Water Associated with Industrial Activities (General Permit), has performed activities that are included in its Storm Water Monitoring Plan (SWMP). The SWMP also provides the basis for the evaluation of compliance with the General Permit and Storm Water Pollution Prevention Plan (SWPPP). The combination of the SWMP and the SWPPP comprises the storm water monitoring and pollution prevention plans for the entire 42-acre site and facilities owned and operated by LRTC.

As required by the USEPA Consent Decree, dated April 22, 1996 and the completed Upland Cap Installation, Former United Heckathorn Facility, Richmond, California, the Operations and Maintenance Plan (O&M Plan) describes the procedures for the long-term management of the upland capping system at the 4.5-acre Heckathorn NPL Site. The results of inspections, monitoring, and maintenance of the cap and drainage system are documented within this Annual Report. The upland remedy implemented by LRTC and Levin Enterprises Inc. was approved on September 30, 1999. There was no activity to report for the period ending June 2004. In order that the Annual Report of the O&M Plan may coincide with the Annual Report requirements of the SWMP and the SWPPP, LRTC submits both Annual Reports by June 30 of each year. All referenced reports and documents are available at LRTC and will be sent to USEPA upon request.

This document presents the June 2004 summary of recent inspection and maintenance by LRTC of the cap and associated storm water interceptors. Submittal of Annual Reports will be made for the reporting period, ending June 30 of each year.

1.1 Background

Environmental Technical Services (ETS) prepared and caused to be filed, on behalf of LRTC, the 2003-2004 Annual Report for Storm Water Discharges Associated with Industrial Activities, for the period ending June 2004. During the 2003 – 2004 reporting period no changes have been made to the Heckathorn NPL Site, including but not limited to material processes, capping, interceptors, and site construction. Site observations, monitoring, and "Good Housekeeping Practices" are performed on a daily basis.

1.2 Current Site Use

The Levin-Richmond Terminal Corporation operates a dry-bulk marine terminal encompassing approximately 42 acres. Total activities include uncovered storage of cargo materials such as metallurgical coke, furnace coke, sand, cottonseed, bauxite, and aggregates. The bulk cargo is stockpiled onsite and loaded onto vessels or unloaded from vessels to rail cars and trucks. The capped section of the former Heckathorn Site is used for stockpiling cargo and railroad operations.

2.0 CAP AND STORM WATER INTERCEPTORS

2.1 Description of Capping System

Concrete Cap

The cap is located in the upland area, location of the former United Heckathorn Facility. The cap consists of a minimum of six inches of concrete aggregates with reinforcing steel wire. The reinforcing steel consists of a double layer of 6' by 6' W4.5 X W4.5 steel-welded wire fabric (WWF). In some areas the cap overlies asphalt. In the other areas where asphalt does not exist, the cap overlies a double layer of 4-inch by 4-inch W4.5 X W4.5 WWF. In these areas the sub-grade was prepared and compacted according to the specification approved by the USEPA.

Geotextile Fabric and Gravel Cover

Some areas of the upland cap adjacent to railroad tracks and switches, where the storage and handling of bulk materials does not occur, were covered with a geotextile fabric and gravel. These areas consist of soils potentially containing pesticides. The geotextile membrane and six-inches of clean imported gravel cover these soils.

2.2 Inspection of Cap

The cap was inspected by Helen Mawhinney Environmental Specialist for Environmental Technical Services (ETS) on June 23, 2004, and found to be intact and in good condition. The cap is inspected quarterly by ETS, while performing storm water and "Good Housekeeping" observations. The cap was found to be uncompromised with only occasional surface "feather" cracks typical of those which develop subsequent to the curing of freshly, poured concrete. The cracks are insignificant and not indicative of stress fractures. These surface cracks are too small to repair.

2.3 Inspection of Drop Inlets and Interceptors

Visual observations of storm water runoff and storm water systems are performed on an as-needed basis during shipping activities, significant rainfall, dry and wet seasons. Work areas and surface conditions are inspected on a daily basis, and the entire site is cleaned using LRTC's power vacuum and sweeper power brooms as part of LRTC's routine housekeeping. Site surfaces are kept clean to assist in ensuring sediment and contaminants do not enter nearby surface waters.

LRTC staff and Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform random site inspections and to advise LRTC as to effective pollution prevention improvements. Mr. Lou Butty, of American Textiles, a pollution absorbent/prevention materials expert and vendor, performs site inspections during the wet season to evaluate the condition and placement of absorbent snakes, socks, pads, and fabrics.

LRTC's Storm Water Pollution Prevention Plan includes the inspection and documentation of drop inlet and interceptor conditions once each quarter, dry season, and annually. Monthly inspections are required during the wet season. LRTC and ETS have elected to document all inspection results on a monthly basis. The results are included in the Annual Report for Storm Water Discharges Associated with Industrial Activities

2.4 Purging and Cleaning of the Storm Drains

Plans for cleaning the five storm water interceptors were developed by Levin Richmond Terminal personnel with Environmental Technical Services in June 2003.

Environmental Technical Services (ETS) collected a water sample from each interceptor on June 4, 2003. The samples were composited as one sample for analyses. The purpose of sampling/analyses was to determine if storm water contained within the interceptors could be discharged into the local sanitary sewer.

The composite water sample was designated as SW 3, 4, 5, 6, 7. The sample was analyzed for Total Petroleum Hydrocarbons as gasoline, benzene, toluene, ethylbenzene, total xylenes (TPHg, & BTEX using EPA Method 8015 modified), Total Petroleum Hydrocarbons as diesel (TPHd, using EPA Method 8015 modified, extractable), motor oil (using EPA Method 413.1), pesticides (using EPA Method 8081), aluminum, copper, lead (using EPA Method 200.7), iron and zinc (using EPA Method 6010B), pH (using a Hydec pH meter).

Certified clean, properly preserved bottles were supplied by Entech Analytical Laboratories. The bottles were stored in sealed plastic bags and placed within tightly sealed containers to prevent contamination. Helen Mawhinney of ETS collected the storm water samples. Ms. Mawhinney was trained in proper sample collection, storage, and maintenance of clean sample containers and equipment. A dedicated disposable bailer was used for each storm water drain. Disposable latex gloves were changed when an unclean surface was encountered and between samples. Headspace was eliminated in sample bottles and appropriate preservatives used.

Samples were stored in a clean cooler on clean ice and transported to a qualified hazardous waste laboratory, under chain of custody, within the sample holding time. Each sample was properly labeled with LRTC, interceptor number, preservative, date, time, and name of sampler.

Upon completion laboratory analytical results were presented to the City of Richmond Waste Water Division, Pretreatment Program, for review to determine if water removed during the storm water interceptor's cleaning process could be discharged into the sanitary sewer. Upon approval, the City of Richmond inspected the storm drains and sanitary sewer and an Industrial Discharge Permit was issued. The Waste Water Division was notified 48-hours prior to the project start.

LRTC's OSHA certified personnel emptied and cleaned interceptors SW-3 through SW-7, under a site-specific Health and Safety Plan. LRTC pumped water from the interceptors utilizing a specially equipped water truck. Water was discharged from the water truck directly into the sanitary sewer. Sediment was removed from the interceptors using storm water to liquefy the sediment, which was then pumped into the vacuum truck. Sediment was released from the truck onto 6-ml plastic and covered with 6-ml plastic bermed with K-Rail. Sediment was stored away from the drop inlets to be disposed of at a qualified landfill.

Subsequent to emptying, each interceptor's floor and sidewalls was pressure-washed. This process was repeated until all sediment had been removed and the cleaning of each interceptor complete.

Pre-Interceptor Clean Out, Sanitary Sewer Discharge Permit,
Collected Stormwater Analytical Results

TABLE I
Composite Water Sample
Storm Water Interceptors SW-3 through SW-7
June 4, 2003

Sample ID	TPHg ppb	B Ppb	T ppb	E Ppb	X ppb	TPHd ppb	Motor Oil ppb	MtBE ppb
SW- 3, 4, 5, 6, 7 (Composite)	ND	ND	ND	ND	ND	510.0	310.0	ND
Detection Limit	50.0	0.5	0.5	0.5	1.0	50.0	250.0	5.0

Sample ID	TOG ppb	pH	PCBs Pesticides ppb
SW- 3, 4, 5, 6, 7 (Composite)	ND	7.3	ND
Detection Limit	5.0	----	0.04 – 0.2

Sample ID	Aluminum Ppb	Copper ppb	Iron ppb	Lead ppb	Zinc ppb
SW-3, 4, 5, 6, 7 (Composite)	0.060	0.015	1.4	ND	0.069
Detection Limit	0.05	0.005	0.05	0.015	0.005

ND = Not detected at the lower detection limit for this analysis

3.0 SAMPLING OF STORM WATER INTERCEPTORS SUBSEQUENT TO RAINFALL

Rainfall did not occur through June 30, 2004 in quantities sufficient to create an outpour of storm water from interceptors SW3 through SW7. ETS and LRTC personnel, were able to empty all storm water and sediment from each interceptor prior to fall rainfall allowing LRTC to enter the rainy season with dry interceptors. This practice allows LRTC to prevent the discharge of water and sediments from these interceptors into the Lauritzen Channel and is scheduled to be repeated each year subsequent to seasonal rainfall.

4.0 BETTER BUSINESS PRACTICES / GOOD HOUSE KEEPING

Levin-Richmond Terminal Corporation has been working closely with Environmental Technical Services improving and upgrading each site process that could adversely impact the environment. Improvements are not limited to but include the following:

4.1 Street Sweeper

In 2001 LRTC purchased an in-house Tennant vacuum power sweeper, which is scheduled to perform daily sweeping of outside surface areas, and cleanup following the loading of ships. The sweeper is also positioned and manned during appropriate cargo operations. The sweeper is covered by a maintenance contract and is fully maintained by Tennant's service technicians.

A second vacuum power sweeper, manufactured by Sentinel, was purchased by LRTC and working onsite by January 1, 2004.

4.2 Water Truck

An LRTC water truck has been converted to pump and contain water from interceptors SW-2 through SW-7 prior to permitted discharge into the sanitary sewer. This prevents the storm water within interceptors SW-3 through SW-7 from reaching levels that outflow into the Lauritzen Channel.

4.3 Vacuum Truck

An LRTC vacuum truck has been converted to pump and contain sediments from drain inlets and interceptors.

4.4 Brooms

LRTC operates two (2) IT-28 tractors with broom attachments to perform clean up of the capped surface following cargo operations.

4.5 Hay Bales

Hay bales are placed around the entirety of each interceptor and storm drain. During cargo handling stormdrain inflows within the work area are covered with sediment proof fabric and hay bales. Interceptor SW-3, located near the hopper building, is covered with plastic when the hopper is in use, to prevent the dropping of material from the hopper onto the interceptor. The steel plate covering interceptor SW-7 has a tight seal. Therefore, it is doubtful material would enter the basin. However, covering the interceptor is an added precaution.

A daily inspection is conducted by supervisors of all working stockpiles, mobile equipment and conveying equipment, for containment and cleanliness to eliminate the buildup of material on jackwalls, equipment, roadways, and surfaces. Small spills are given the same attention as large spills.

Cargo stockpiles are stored away from surface waters, drains, and storm water inlets. L-Rail is placed around stockpiles for containment.

4.6 Absorbent Materials

Mr. Lou Butty, of American Textile, was retained to direct the placement of appropriate absorbent snakes, socks, pillows, and filters, around and within each interceptor and storm drain. The absorbent materials are photosensitive and have a limited life span. Each absorbent type is closely monitored and on a replacement schedule. The absorbent materials are white, allowing easy detection of saturation with waste.

Clean up stations have been placed strategically throughout the site in close proximity to areas where potential contaminants are used or stored and within each work vehicle. These materials are stored in foil factory-sealed bags to maintain their integrity. Ample supplies of absorbents are stored at LRTC.

A Dock Emergency Response Station has been established to efficiently organize access to adequate cleanup supplies.

Exposed soil and ties beneath railroad car "parking stations" have been covered with "Trackmat", an absorbent fabric barrier, prescribed and provided by American Textiles. This material is scheduled for routine replacement.

Mr. Butty inspects LRTC's absorbent supply and placement at the beginning of each wet season, then instructs as to effective changes in material, quantity, or placement, which could increase filtration efficiency.

Throughout the wet season hay bales and absorbents surround each drain inlet. Storm water runoff must flow through these prior to entering the storm water interceptor or drain outflow. Additional hay bales, sediment pillows, and absorbent materials were added to this area during the wet season's loading and unloading activities.

During the dry season interceptors were sealed by pressing hay bales, absorbents, and sediment proof fabric tight against each system's inflow. Inflow grates flush with grade are sealed with plastic sheeting. Where traffic allows each grate is covered with, and surrounded by, hay bales.

4.7 Interceptor Improvements

SW-1

The storm water collection trench, which flows to monitoring point SW-1, was sealed by covering with asphalt/concrete. The trench was excavated at three locations and 48" X 48" basins with surface cleanout grates constructed within to allow the settling of sediments prior to storm water entering the final interceptor/outflow.

New hay bales were continually placed surrounding each drain inlet. Additional absorbents were placed within the last interceptor compartment. Wright Avenue was bermed at a low point, and the curbing at the property line was improved. Additional berming was added to all equipment and storage areas.

All basins and the primary interceptor associated with storm water system SW-1 will be emptied and cleaned several times throughout the 2004-205 reporting year to assist in decreasing contaminants including sediment.

SW-2

This interceptor was upgraded to an aboveground interceptor in 2001, and constructed with three-tiered chambers to allow the settling of sediments into the chamber floor.

In 2002, a concrete berm with a small opening was constructed around the interceptor's perimeter. Currently hay bales and absorbents surround this opening, creating a filtration system. Stormwater runoff must flow through the opening prior to entering a second filtration system surrounding the interceptor's inflow. Additional hay bales, sediment pillows, and absorbents were added to this area during the wet season's loading and unloading activities to collect sediments prior to entering the interceptor.

This interceptor is scheduled to be emptied and cleaned several times throughout the year.

SW-3 through SW-7

These stormwater systems did not have outflow during the two sampling events and were not sampled. The interceptors are drained and cleaned annually. Absorbents are placed within each system's inlet(s). Inlets are also covered with plastic sheeting and/or hay bales during site operations.

SW-8, SW-9

Additional absorbents have been placed around and within these interceptors.

SW-10

In 2001 this drop inlet was upgraded to an interceptor, constructed with three-tiered chambers, to allow the settling of sediments into the chamber floor. Additional absorbents have been placed around and within the interceptor.

This interceptor is scheduled to be emptied and cleaned several times throughout the year.

4.8 Training

LRTC personnel working with potential contaminants are OSHA 40-hour Hazmat trained, with a yearly eight-hour refresher course. Qualified personnel are also spill-response trained.

On September 22 through 24, 2004, Bluewater & Associates conducted training at LRTC. Twenty-five LRTC employees completed certification. LRTC will continue annual training and certification.

Training included but was not limited to the following:

OSHA Hazardous Materials Standard
Recognizing hazardous materials
Hazardous materials basics, terms, and definitions
Hazardous communications (HMIS, NFPA, MSDS's, DOT and ERG)
Decontamination
Toxicology, PPE,
Confined space entry
Department of Transportation exercises
Spill control, containment, and cleanup
Emergency procedures, and ICS

Environmental Technical Services (ETS) instructed a storm water pollution prevention course for all of LRTC's supervisors in July 2003. The course included: regulations, surface water sensitivity, spill prevention, spill response, good housekeeping, pollution prevention, sampling and analyses, benchmarks, and reporting.

4.9 Marine Spill Emergency Response

LRTC maintains a verbal contract with Zaccor Companies Inc., an emergency response contractor, to respond to an LRTC marine spill, should one occur. Zaccor Companies contracts with FOSS Environmental Infrastructure to provided 24-hour emergency response on both land and water.

This contract includes providing emergency response vessels, personnel, absorbent consumables and Coast Guard approved oil containment boom.

The Coast Guard Marine Safety Office (MSO), requires that each visiting cargo vessel must have an existing OSRO with an emergency response contract, prior to the Coast Guard allowing entry into US Ports.

4.10 Inspections

Daily inspections are conducted by supervisors and employees of all working stockpiles, mobile equipment, and conveying equipment, for containment and cleanliness to eliminate the buildup of material on jackwalls, equipment, roadways, and surfaces. Small spills are given the same attention as large spills.

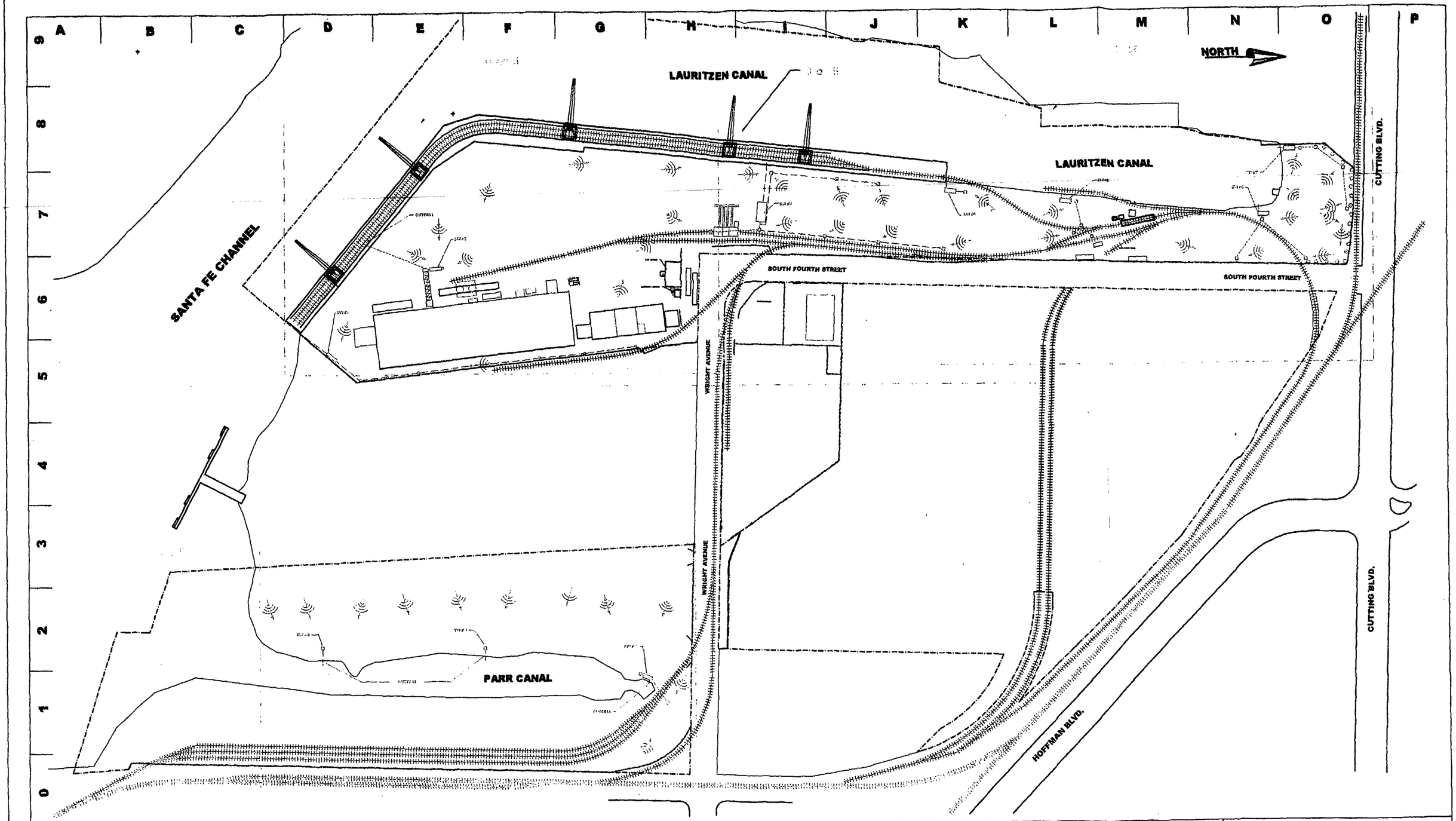
LRTC staff and/or Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform site inspections randomly and to advise LRTC as to effective pollution prevention improvements. Mr. Lou Butty, of American Textiles, a pollution absorbent/prevention materials expert and vendor, performs site inspections during the wet season to evaluate the condition and placement of absorbent snakes, socks, pads, and fabrics.

5.0 SUMMARY

The finding and results submitted in this document satisfy the requirements of the Operations and Maintenance Plan, as stipulated by the USEPA Consent Decree for the completed Upland Cap Installation for the Former United Heckathorn Facility, Richmond, California.

Appendix A

Plates



SCALE = 1"=200'	LEVIN-RICHMOND TERMINAL STORM WATER FLOW, CATCH BASINS AND INTERSEPTORS	1 OF 5

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D E F G H

8 7 6 5

LAURITZEN CANAL

OUTFALL

OUTFALL

SW #5

SW #4

OUTFALL

SW #7

OUTFALL

SW #6

SOUTH FOURTH STREET

SCALE 1" = 60'

LEVIN-RICHMOND TERMINAL

STORM WATER FLOW, CATCH BASINS AND INTERSEPTORS

2 OF 5

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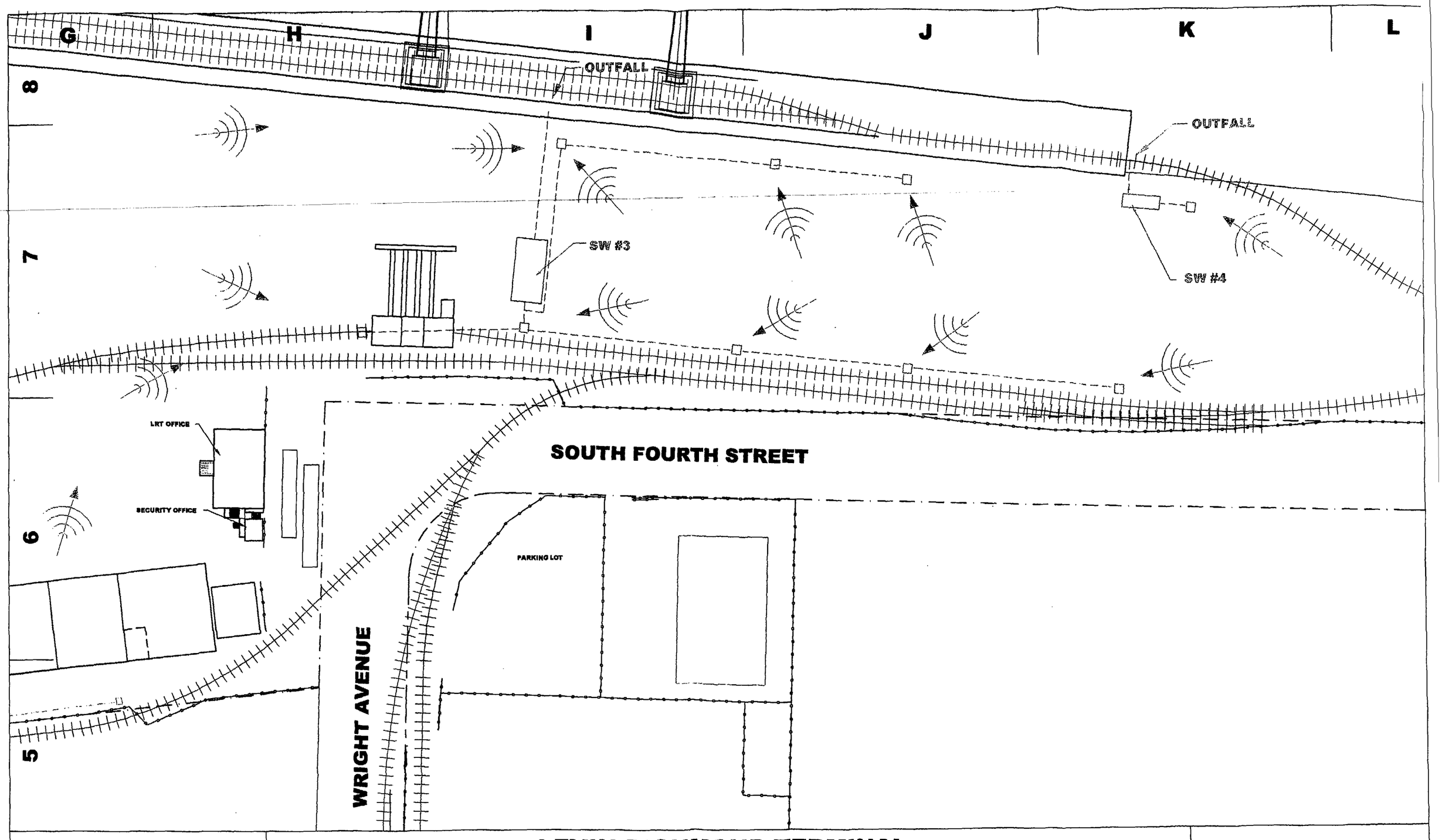

SCALE 1" = 60'

LEVIN-RICHMOND TERMINAL

STORM WATER FLOW, CATCH BASINS AND INTERSEPTORS

3 OF 5

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D

E

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G

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6

5

OUTFALL

SW #2

OUTFALL

SW #1

LRT OFFICE

SECURITY OFFICE

WRIGHT AVENUE

SCALE 1" = 60'

LEVIN-RICHMOND TERMINAL

STORM WATER FLOW, CATCH BASINS AND INTERSEPTORS

4 OF 5

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C D E F G H

3

2

SW # 8

SW # 9

SW #10

OUTFALL

PARR CANAL

OUTFALL

1

0

SCALE 1" = 60'	**LEVIN-RICHMOND TERMINAL** **STORM WATER FLOW, CATCH BASINS AND INTERSEPTORS**	5 OF 5

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Appendix B

Interceptor Cleanout
Laboratory Analytical Report

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Technical Services
1548 Jacob Avenue
San Jose, Ca 95118
Attn: Helen Mawhinney

Date: 06/12/03
Date Received: 6/5/2003
Project Name: LRT
Project Number: LRT
P.O. Number: LRT
Sampled By: Helen Mawhinney

Certified Analytical Report

Order ID: 34664 **Lab Sample ID:** 34664-001 **Client Sample ID:** SW3,SW4,SW5,SW6,SW7(Comp

Sample Time: **Sample Date:** 6/4/2003 **Matrix:** Liquid

Parameter	Result	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Oil and Grease, Total	ND	1	1	1	mg/L	6/9/2003	WOG030609	EPA 413.2

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

June 12, 2003

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, Ca 95118

Order:	34664	**Date Collected:**	6/4/2003
Project Name:	LRT	**Date Received:**	6/5/2003
Project Number:	LRT	**P.O. Number:**	LRT
Project Notes:			

On June 05, 2003, sample was received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Liquid	Aluminum	EPA 200.7
	Copper	EPA 200.7
	EPA 8081A	EPA 8081A
	EPA 8082A	EPA 8082A
	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable)
		EPA 8020
	Iron	EPA 200.7
	Lead	EPA 200.7
	Oil & Grease-IR	EPA 413.2
	TPH as Diesel	EPA 8015 MOD. (Extractable)
	TPH as Motor Oil	EPA 8015 MOD. (Extractable)
	Zinc	EPA 200.7

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,

Patti Sandrock
QA/QC Manager

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Technical Services
1548 Jacob Avenue
San Jose, Ca 95118
Attn: Helen Mawhinney

Date: 06/12/03
Date Received: 6/5/2003
Project Name: LRT
Project Number: LRT
P.O. Number: LRT
Sampled By: Helen Mawhinney

Certified Analytical Report

Order ID: 34664 **Lab Sample ID:** 34664-001 **Client Sample ID:** SW3,SW4,SW5,SW6,SW7(Comp

Sample Time: **Sample Date:** 6/4/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	6/6/2003	WGC42854	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	6/6/2003	WGC42854	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	6/6/2003	WGC42854	EPA 8020
Xylenes, Total	ND		1	1	1	µg/L	N/A	6/6/2003	WGC42854	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98.0	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	1	1	µg/L	N/A	6/6/2003	WGC42854	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98.0	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	6/6/2003	WGC42854	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89.6	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

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Sampled By: Helen Mawhinney

Certified Analytical Report

Order ID: 34664 **Lab Sample ID:** 34664-001 **Client Sample ID:** SW3,SW4,SW5,SW6,SW7(Comp

Sample Time: **Sample Date:** 6/4/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	510	x	1	50	50	µg/L	6/6/2003		DW4371A	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	93.0	21 - 142

Comment: Not a TPH as Diesel pattern; Value due to an unknown hydrocarbon (C12 - C34), in the Diesel quantitation range.

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	310	x	1	250	250	µg/L	6/6/2003		DW4371A	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	93.0	32 - 145

Comment: Not a TPH as Motor Oil pattern; Value due to an unknown hydrocarbon (C12 - C34), in the Motor Oil quantitation range.

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

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Certified Analytical Report

Order ID: 34664 **Lab Sample ID:** 34664-001 **Client Sample ID:** SW3,SW4,SW5,SW6,SW7(Com

Sample Time: **Sample Date:** 6/4/2003 **Matrix:** Liquid

Parameter	Result	DF	PQL	DLR	Units	PrepDate	Analysis Date	QC Batch ID	Method
Aluminum	0.060	1	0.05	0.05	mg/L	6/6/2003	6/10/2003	WM8465	EPA 200.7
Copper	0.015	1	0.005	0.005	mg/L	6/6/2003	6/10/2003	WM8465	EPA 200.7
Iron	1.4	1	0.05	0.05	mg/L	6/6/2003	6/10/2003	WM8465	EPA 200.7
Lead	ND	1	0.015	0.015	mg/L	6/6/2003	6/10/2003	WM8465	EPA 200.7
Zinc	0.069	1	0.005	0.005	mg/L	6/6/2003	6/10/2003	WM8465	EPA 200.7

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Environmental Technical Services
1548 Jacob Avenue
San Jose, Ca 95118
Attn: Helen Mawhinney

Date: 06/12/03
Date Received: 6/5/2003
Project Name: LRT
Project Number: LRT
P.O. Number: LRT
Sampled By: Helen Mawhinney

Certified Analytical Report

Order ID: 34664 **Lab Sample ID:** 34664-001 **Client Sample ID:** SW3,SW4,SW5,SW6,SW7(Comp

Sample Time: **Sample Date:** 6/4/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Aroclor 1016	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1221	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1232	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1242	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1248	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1254	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1260	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1262	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A
Aroclor 1268	ND		1	0.1	0.1	µg/L	6/5/2003	6/7/2003	PW7251A	EPA 8082A

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	56.1	42 - 127

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Certified Analytical Report

Order ID: *34664* ***Lab Sample ID:*** *34664-001* ***Client Sample ID:*** SW3,SW4,SW5,SW6,SW7(Comp

Sample Time: **Sample Date:** 6/4/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Alpha-BHC	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Gamma-BHC (Lindane)	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Beta-BHC	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Heptachlor	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
delta-BHC	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Aldrin	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Heptachlor Epoxide	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Endosulfan I	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
4,4'-DDE	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Dieldrin	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Endrin	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
4,4'-DDD	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Endosulfan II	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
4,4'-DDT	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Endrin Aldehyde	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Endosulfan Sulfate	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Methoxychlor	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Endrin Ketone	ND		1	0.04	0.04	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Chlordane (technical)	ND		1	0.2	0.2	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A
Toxaphene	ND		1	0.2	0.2	µg/L	6/5/2003	6/7/2003	PW6131B	EPA 8081A

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	*60.7*	*35 - 105*

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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STANDARD LAB QUALIFIERS (FLAGS)

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier (Flag)	Description
U	Compound was analyzed for but not detected
J	Estimated value for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	*Results within quantitation range;* chromatographic pattern not typical of fuel
Y	PQL is reported below MDL but verified against a standard analyzed at the client requested reporting limit of 0.5 ppb
C	Reported results affected by contaminated reagent materials. See narrative for futher explanation

Entech Analytical Labs, Inc.

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Quality Control Results Summary

QC Batch #: PW7251A
Matrix: Liquid
Units: µg/L
Date Analyzed: 6/6/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: EPA 8082A											
Aroclor 1260	EPA 8082A	ND		0.2		0.1991	LCS	99.5			53.6 - 127.3
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	Decachlorobiphenyl			80.6		42 - 127					
Test: EPA 8082A											
Aroclor 1260	EPA 8082A	ND		0.2		0.2094	LCSD	104.7	5.04	30.00	53.6 - 127.3
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	Decachlorobiphenyl			88.2		42 - 127					